

# CONTENTS OF VOLUME 28

## Articles

ALBERS, WILLEM, BOON, PIETA C. AND KALLENBERG, WILBERT C. M. Size and power of pretest procedures .....	195-214
ALMUDEVAR, ANTHONY, FIELD, CHRIS AND ROBINSON, JOHN. The density of multivariate $M$ -estimates .....	275-297
ARCONES, MIGUEL A. AND SAMANIEGO, FRANCISCO J. On the asymptotic distribution theory of a class of consistent esti- mators of a distribution satisfying a uniform stochastic ordering constraint .....	116-150
BAILEY, R. A. AND MORGAN, J. P. Optimal design with many blocking factors .....	553-577
BARTOLUCCI, FRANCESCO AND FORCINA, ANTONIO. A likelihood ratio test for $MTP_2$ within binary variables .....	1206-1218
BEIBEL, M. A note on sequential detection with exponential penalty for the delay .....	1696-1701
BELITSER, EDUARD. Recursive estimation of a drifted autore- gressive parameter .....	860-870
BOON, PIETA C., KALLENBERG, WILBERT C. M. AND ALBERS, WILLEM. Size and power of pretest procedures .....	195-214
BREIDT, F. JAY AND OPSOMER, JEAN D. Local polynomial regres- sion estimators in survey sampling .....	1026-1053
BREIMAN, LEO. Discussion of "Additive logistic regression: A statistical view of boosting" by Jerome Friedman, Trevor Hastie and Robert Tibshirani .....	374-376
BUJA, ANDREAS. Discussion of "Additive logistic regression: A statistical view of boosting" by Jerome Friedman, Trevor Hastie and Robert Tibshirani .....	387-390
BÜHLMANN, PETER AND YU, BIN. Discussion of "Additive logistic regression: A statistical view of boosting" by Jerome Friedman, Trevor Hastie and Robert Tibshirani .....	377-386
CAVALIER, LAURENT. Efficient estimation of a density in a prob- lem of tomography .....	630-647
CHAN, HOCK PENG AND LAI, TZE LEUNG. Asymptotic approxi- mations for error probabilities of sequential or fixed sample size tests in exponential families .....	1638-1669
CHAUDHURI, PROBAL AND MARRON, J. S. Scale space view of curve estimation .....	408-428
CHEN, KANI. Optimal sequential designs of case-control stud- ies .....	1452-1471
CHOI, EDWIN, HALL, PETER AND ROUSSON, VALENTIN. Data sharpening methods for bias reduction in nonparametric regression .....	1339-1355
CIFARELLI, DONATO MICHELE AND MELILLI, EUGENIO. Some new results for Dirichlet priors .....	1390-1413

CSISZÁR, IMRE AND SHIELDS, PAUL C. The consistency of the BIC Markov order estimator .....	1601-1619
DAHLHAUS, RAINER. A likelihood approximation for locally stationary processes .....	1762-1794
DATTA, GAURI SANKAR, MUKERJEE, RAHUL, GHOSH, MALAY AND SWEETING, TREVOR J. Bayesian prediction with approximate frequentist validity .....	1414-1426
DETTE, HOLGER AND FRANKE, TOBIAS. Constrained $D$ - and $D1$ -optimal designs for polynomial regression .....	1702-1727
DMITRIENKO, A. AND GOVINDARAJULU, Z. Sequential confidence regions for maximum likelihood estimates .....	1472-1501
DRAPER, NORMAN R., HEILIGERS, BERTHOLD AND PUKELSHEIM, FRIEDRICH. Kiefer ordering of simplex designs for second-degree mixture models with four or more ingredients .....	578-590
DREES, HOLGER, DE HAAN, LAURENS AND RESNICK, SIDNEY. How to make a Hill plot .....	254-274
EGGERMONT, P. P. B. AND LARICCIA, V. N. Maximum likelihood estimation of smooth monotone and unimodal densities ...	922-947
FIELD, CHRIS, ROBINSON, JOHN AND ALMUDEVAR, ANTHONY. The density of multivariate $M$ -estimates .....	275-297
FORCINA, ANTONIO AND BARTOLUCCI, FRANCESCO. A likelihood ratio test for $MTP2$ within binary variables .....	1206-1218
FRANKE, TOBIAS AND DETTE, HOLGER. Constrained $D$ - and $D1$ -optimal designs for polynomial regression .....	1702-1727
FREUND, YOAV AND SCHAPIRE, ROBERT E. Discussion of "Additive logistic regression: A statistical view of boosting" by Jerome Friedman, Trevor Hastie and Robert Tibshirani .....	391-392
FRIEDMAN, JEROME, HASTIE, TREVOR AND TIBSHIRANI, ROBERT. Additive logistic regression: A statistical view of boosting ...	337-373
FRIEDMAN, JEROME, HASTIE, TREVOR AND TIBSHIRANI, ROBERT. Rejoinder .....	400-407
FRIGESSI, ARNOLDO, GÅSEMYR, JØRUND AND RUE, HÅVARD. Antithetic coupling of two Gibbs sampler chains .....	1128-1149
FU, WENJIANG AND KNIGHT, KEITH. Asymptotics for lasso-type estimators .....	1356-1378
FUH, CHENG-DER AND HU, INCHI. Asymptotically efficient strategies for a stochastic scheduling problem with order constraints .....	1670-1695
GAO, FANGYU, KLEIN, RONALD, KLEIN, BARBARA, LIN, XIWU, WAHBA, GRACE AND XIANG, DONG. Smoothing spline ANOVA models for large data sets with Bernoulli observations and the randomized GACV .....	1570-1600
GENOVESE, CHRISTOPHER R. AND WASSERMAN, LARRY. Rates of convergence for the Gaussian mixture sieve .....	1105-1127
GHOSAL, SUBHASHIS, GHOSH, JAYANTA K. AND VAN DER VAART, AAD W. Convergence rates of posterior distributions ....	500-531

GHOSAL, SUBHASHIS, SEN, ARUSHARKA AND VAN DER VAART, AAD W. Testing monotonicity of regression .....	1054-1082
GHOSH, JAYANTA K., VAN DER VAART, AAD W. AND GHOSAL, SUBHASHIS. Convergence rates of posterior distribu- tions .....	500-531
GHOSH, MALAY, SWEETING, TREVOR J., DATTA, GAURI SANKAR AND MUKERJEE, RAHUL. Bayesian prediction with approximate frequentist validity .....	1414-1426
GILBERT, PETER B. Large sample theory of maximum likelihood estimates in semiparametric biased sampling models .....	151-194
GOLDENSHLUGER, ALEXANDER AND GREENSHTEIN, EITAN. Asymptotically minimax regret procedures in regression model selection and the magnitude of the dimension penalty .....	1620-1637
GOVINDARAJULU, Z. AND DMITRIENKO, A. Sequential confidence regions for maximum likelihood estimates .....	1472-1501
GREENSHTEIN, EITAN AND GOLDENSHLUGER, ALEXANDER. Asymptotically minimax regret procedures in regres- sion model selection and the magnitude of the dimension penalty .....	1620-1637
GUO, SUNWEI AND XIONG, MOMIAO. Multiple regression approach to mapping of quantitative trait loci (QTL) based on sib-pair data: A theoretical analysis .....	1245-1278
GÅSEMYR, JØRUND, RUE, HÅVARD AND FRIGESSI, ARNOLDO. Antithetic coupling of two Gibbs sampler chains .....	1128-1149
HALL, PETER AND HECKMAN, NANCY E. Testing for monotonicity of a regression mean by calibrating for linear functions ....	20-39
HALL, PETER AND RAU, CHRISTIAN. Tracking a smooth fault line in a response surface .....	713-733
HALL, PETER, ROUSSON, VALENTIN AND CHOI, EDWIN. Data sharpening methods for bias reduction in nonparametric regression .....	1339-1355
HASTIE, TREVOR, TIBSHIRANI, ROBERT AND FRIEDMAN, JEROME. Additive logistic regression: A statistical view of boosting ...	337-373
HASTIE, TREVOR, TIBSHIRANI, ROBERT AND FRIEDMAN, JEROME. Rejoinder .....	400-407
HECKMAN, NANCY E. AND HALL, PETER. Testing for monotonicity of a regression mean by calibrating for linear func- tions .....	20-39
HEILIGERS, BERTHOLD, PUKELSHEIM, FRIEDRICH AND DRAPER, NORMAN R. Kiefer ordering of simplex designs for second- degree mixture models with four or more ingredients .....	578-590
HU, INCHI AND FUH, CHENG-DER. Asymptotically efficient strategies for a stochastic scheduling problem with order constraints .....	1670-1695

HUANG, JIANHUA Z., KOOPERBERG, CHARLES, STONE, CHARLES J. AND TRUONG, YOUNG K. Functional ANOVA modeling for proportional hazards regression .....	961-999
INGLOT, TADEUSZ, KALLENBERG, WILBERT C. M. AND LEDWINA, TERESA. Vanishing shortcoming and asymptotic relative efficiency .....	215-238
JANSSEN, ARNOLD. Global power functions of goodness of fit tests .....	239-253
JONES, L. K. Local greedy approximation for nonlinear regression and neural network training .....	1379-1389
JUDITSKY, ANATOLI AND NEMIROVSKI, ARKADII. Functional aggregation for nonparametric regression .....	681-712
KALLENBERG, WILBERT C. M., ALBERS, WILLEM AND BOON, PIETA C. Size and power of pretest procedures .....	195-214
KALLENBERG, WILBERT C. M., LEDWINA, TERESA AND INGLOT, TADEUSZ. Vanishing shortcoming and asymptotic relative efficiency .....	215-238
KLEIN, BARBARA, LIN, XIWU, WAHBA, GRACE, XIANG, DONG, GAO, FANGYU AND KLEIN, RONALD. Smoothing spline ANOVA models for large data sets with Bernoulli observations and the randomized GACV .....	1570-1600
KLEIN, RONALD, KLEIN, BARBARA, LIN, XIWU, WAHBA, GRACE, XIANG, DONG AND GAO, FANGYU. Smoothing spline ANOVA models for large data sets with Bernoulli observations and the randomized GACV .....	1570-1600
KNIGHT, KEITH AND FU, WENJIANG. Asymptotics for lasso-type estimators .....	1356-1378
KOCHAR, SUBHASH C., MUKERJEE, HARI AND SAMANIEGO, FRANCISCO J. Estimation of a monotone mean residual life .....	905-921
KOLTCHINSKII, V. I. Empirical geometry of multivariate data: A deconvolution approach .....	591-629
KOOPERBERG, CHARLES, STONE, CHARLES J., TRUONG, YOUNG K. AND HUANG, JIANHUA Z. Functional ANOVA modeling for proportional hazards regression .....	961-999
KUNERT, J. AND MARTIN, R. J. On the determination of optimal designs for an interference model .....	1728-1742
LARICCIA, V. N. AND EGGERMONT, P. P. B. Maximum likelihood estimation of smooth monotone and unimodal densities ...	922-947
LAI, TZE LEUNG AND CHAN, HOCK PENG. Asymptotic approximations for error probabilities of sequential or fixed sample size tests in exponential families .....	1638-1669
LAM, TAO-KAI AND LOH, WEI-LIEM. Estimating structured correlation matrices in smooth Gaussian random field models .	880-904
LAURENT, B. AND MASSART, P. Adaptive estimation of a quadratic functional by model selection .....	1302-1338

- LEDWINA, TERESA, INGLOT, TADEUSZ AND KALLENBERG, WILBERT C.  
M. Vanishing shortcoming and asymptotic relative efficiency ..... 215-238
- LI, LEI AND SPEED, TERENCE P. Parametric deconvolution of positive spike trains ..... 1279-1301
- LIANG, TACHEN. On an empirical Bayes test for a normal mean ..... 648-655
- LIN, XIWU, WAHBA, GRACE, XIANG, DONG, GAO, FANGYU, KLEIN, RONALD AND KLEIN, BARBARA. Smoothing spline ANOVA models for large data sets with Bernoulli observations and the randomized GACV ..... 1570-1600
- LIN, YI. Tensor product space ANOVA models ..... 734-755
- LOADER, CATHERINE, MCCORMICK, WILLIAM P. AND SUN, JIAYANG. Confidence bands in generalized linear models ..... 429-460
- LOH, JI MENG, STEIN, MICHAEL L. AND QUASHNOCK, JEAN M. Estimating the  $K$  function of a point process with an application to cosmology ..... 1503-1532
- LOH, WEI-LIEM AND LAM, TAO-KAI. Estimating structured correlation matrices in smooth Gaussian random field models ..... 880-904
- MADSEN, JESPER. Invariant normal models with recursive graphical Markov structures ..... 1150-1178
- MARRON, J. S. AND CHAUDHURI, PROBAL. Scale space view of curve estimation ..... 408-428
- MARTIN, R. J. AND KUNERT, J. On the determination of optimal designs for an interference model ..... 1728-1742
- MARTINUSSEN, TORBEN AND SCHEIKE, THOMAS H. A nonparametric dynamic additive regression model for longitudinal data ..... 1000-1025
- MASSART, P. AND LAURENT, B.. Adaptive estimation of a quadratic functional by model selection ..... 1302-1338
- MCCORMICK, WILLIAM P., SUN, JIAYANG AND LOADER, CATHERINE. Confidence bands in generalized linear models ..... 429-460
- MELILLI, EUGENIO AND CIFARELLI, DONATO MICHELE. Some new results for Dirichlet priors ..... 1390-1413
- MIKOSCH, THOMAS AND STĂRICA, CĂTĂLIN. Limit theory for the sample autocorrelations and extremes of a Garch (1, 1) process ..... 1427-1451
- MORGAN, J. P. AND BAILEY, R. A. Optimal design with many blocking factors ..... 553-577
- MUKERJEE, HARI, SAMANIEGO, FRANCISCO J. AND KOCHAR, SUBHASH C. Estimation of a monotone mean residual life ..... 905-921
- MUKERJEE, RAHUL, GHOSH, MALAY, SWEETING, TREVOR J. AND DATTA, GAURI SANKAR. Bayesian prediction with approximate frequentist validity ..... 1414-1426

NEMIROVSKI, ARKADII AND JUDITSKY, ANATOLI. Functional aggregation for nonparametric regression .....	681-712
OPSOMER, JEAN D. AND BREIDT, F. JAY. Local polynomial regression estimators in survey sampling .....	1026-1053
OSSIANDER, MINA AND WAYMIRE, EDWARD C. Statistical estimation for multiplicative cascades .....	1533-1560
OWEN, ART B. Assessing linearity in high dimensions .....	1-19
PESKIR, G. AND SHIRYAEV, A. N. Sequential testing problems for Poisson processes .....	837-859
PICARD, DOMINIQUE AND TRIBOULEY, KARINE. Adaptive confidence interval for pointwise curve estimation .....	298-335
PITTS, SUSAN M. AND POLITIS, KONSTADINOS. Nonparametric estimation in renewal theory II: Solutions of renewal-type equations .....	88-115
POLITIS, KONSTADINOS AND PITTS, SUSAN M. Nonparametric estimation in renewal theory II: Solutions of renewal-type equations .....	88-115
PRONZATO, LUC. Adaptive optimization and $D$ -optimum experimental design .....	1743-1761
PUKELSHEIM, FRIEDRICH, DRAPER, NORMAN R. AND HEILIGERS, BERTHOLD. Kiefer ordering of simplex designs for second-degree mixture models with four or more ingredients .....	578-590
QUASHNOCK, JEAN M., LOH, JI MENG AND STEIN, MICHAEL L. Estimating the $K$ function of a point process with an application to cosmology .....	1503-1532
RAU, CHRISTIAN AND HALL, PETER. Tracking a smooth fault line in a response surface .....	713-733
RESNICK, SIDNEY, DREES, HOLGER AND DE HAAN, LAURENS. How to make a Hill plot .....	254-274
RIDGEWAY, GREG. Discussion of "Additive logistic regression: A statistical view of boosting" by Jerome Friedman, Trevor Hastie and Robert Tibshirani .....	393-399
ROBINSON, JOHN, ALMUDEVAR, ANTHONY AND FIELD, CHRIS. The density of multivariate $M$ -estimates .....	275-297
ROMANO, JOSEPH P. AND WOLF, MICHAEL. Finite sample nonparametric inference and large sample efficiency .....	756-778
ROUSSON, VALENTIN, CHOI, EDWIN AND HALL, PETER. Data sharpening methods for bias reduction in nonparametric regression .....	1339-1355
RUE, HÅVARD, FRIGESSI, ARNOLDO AND GÅSEMYR, JØRUND. Antithetic coupling of two Gibbs sampler chains .....	1128-1149
SAMANIEGO, FRANCISCO J. AND ARCONES, MIGUEL A. On the asymptotic distribution theory of a class of consistent estimators of a distribution satisfying a uniform stochastic ordering constraint .....	116-150



SAMANIEGO, FRANCISCO J., KOCHAR, SUBHASH C. AND MUKERJEE, HARI. Estimation of a monotone mean residual life . . . . .	905-921
SCHAPIRE, ROBERT E. AND FREUND, YOAV. Discussion of "Additive logistic regression: A statistical view of boosting" by Jerome Friedman, Trevor Hastie and Robert Tibshirani . . .	391-392
SCHEIKE, THOMAS H. AND MARTINUSSEN, TORBEN. A nonparametric dynamic additive regression model for longitudinal data . . . . .	1000-1025
SEN, ARUSHARKA, VAN DER VAART, AAD W. AND GHOSAL, SUBHASHIS. Testing monotonicity of regression . . . . .	1054-1082
SERFLING, ROBERT AND ZUO, YIJUN. General notions of statistical depth function . . . . .	461-482
SERFLING, ROBERT AND ZUO, YIJUN. Structural properties and convergence results for contours of sample statistical depth functions . . . . .	483-499
SETTIMI, RAFFAELLA AND SMITH, JIM Q. Geometry, moments and conditional independence trees with hidden variables . . . .	1179-1205
SHAPIRO, ALEXANDER. On the asymptotics of constrained local $M$ -estimators . . . . .	948-960
SHIELDS, PAUL C. AND CSISZÁR, IMRE. The consistency of the BIC Markov order estimator . . . . .	1601-1619
SHIRYAEV, A. N. AND PESKIR, G. Sequential testing problems for Poisson processes . . . . .	837-859
SIEGMUND, DAVID AND YAKIR, BENJAMIN. Approximate $p$ -values for local sequence alignments . . . . .	657-680
SKOURAS, K. Strong consistency in nonlinear stochastic regression models . . . . .	871-879
SMITH, JIM Q. AND SETTIMI, RAFFAELLA. Geometry, moments and conditional independence trees with hidden variables . .	1179-1205
SPEED, TERENCE P AND LI, LEI. Parametric deconvolution of positive spike trains . . . . .	1279-1301
SPOKOINY, VLADIMIR G. Adaptive drift estimation for nonparametric diffusion model . . . . .	815-836
STĂRICĂ, CĂTĂLIN AND MIKOSCH, THOMAS. Limit theory for the sample autocorrelations and extremes of a Garch (1, 1) process . . . . .	1427-1451
STEIN, MICHAEL L., QUASHNOCK, JEAN M. AND LOH, JI MENG. Estimating the $K$ function of a point process with an application to cosmology . . . . .	1503-1532
STEPHENS, MATTHEW. Bayesian analysis of mixture models with an unknown number of components—an alternative to reversible jump methods . . . . .	40-74
STONE, CHARLES J., TRUONG, YOUNG K., HUANG, JIANHUA Z. AND KOOPERBERG, CHARLES. Functional ANOVA modeling for proportional hazards regression . . . . .	961-999

- SUN, JIAYANG, LOADER, CATHERINE AND MCCORMICK, WILLIAM P.  
Confidence bands in generalized linear models ..... 429-460
- SWEETING, TREVOR J., DATTA, GAURI SANKAR, MUKERJEE, RAHUL  
AND GHOSH, MALAY. Bayesian prediction with approximate  
frequentist validity ..... 1414-1426
- TATSUOKA, KAY S. AND TYLER, DAVID E. On the uniqueness of  
S-functionals and M-functionals under nonelliptical distribu-  
tions ..... 1219-1243
- TIBSHIRANI, ROBERT, FRIEDMAN, JEROME AND HASTIE, TREVOR.  
Additive logistic regression: A statistical view of boosting ... 337-373
- TIBSHIRANI, ROBERT, FRIEDMAN, JEROME AND HASTIE, TREVOR.  
Rejoinder ..... 400-407
- TRIBOULEY, KARINE AND PICARD, DOMINIQUE. Adaptive confi-  
dence interval for pointwise curve estimation ..... 298-335
- TRUONG, YOUNG K., HUANG, JIANHUA Z. AND KOOPERBERG, CHARLES  
AND STONE, CHARLES J. Functional ANOVA modeling for  
proportional hazards regression ..... 961-999
- TYLER, DAVID E. AND TATSUOKA, KAY S. On the uniqueness of  
S-functionals and M-functionals under nonelliptical distribu-  
tions ..... 1219-1243
- WAHBA, GRACE, XIANG, DONG, GAO, FANGYU, KLEIN, RONALD,  
KLEIN, BARBARA AND LIN, XIWU. Smoothing spline ANOVA  
models for large data sets with Bernoulli observations and  
the randomized GACV ..... 1570-1600
- WASSERMAN, LARRY AND GENOVESE, CHRISTOPHER R. Rates of  
convergence for the Gaussian mixture sieve ..... 1105-1127
- WAYMIRE, EDWARD C. AND OSSIANDER, MINA. Statistical estima-  
tion for multiplicative cascades ..... 1533-1560
- WELLNER, JON A. AND ZHANG, YING. Two estimators of the  
mean of a counting process with panel count data ..... 779-814
- WOLF, MICHAEL AND ROMANO, JOSEPH P. Finite sample non-  
parametric inference and large sample efficiency ..... 756-778
- WOODROOFE, MICHAEL AND WANG, HSIUYING. The problem of  
low counts in a signal plus noise model ..... 1561-1569
- XIANG, DONG, GAO, FANGYU, KLEIN, RONALD, KLEIN, BARBARA, LIN,  
XIWU AND WAHBA, GRACE. Smoothing spline ANOVA mod-  
els for large data sets with Bernoulli observations and the  
randomized GACV ..... 1570-1600
- XIONG, MOMIAO AND GUO, SUNWEI. Multiple regression  
approach to mapping of quantitative trait loci (QTL) based  
on sib-pair data: A theoretical analysis ..... 1245-1278
- YAKIR, BENJAMIN AND SIEGMUND, DAVID. Approximate  $p$ -values  
for local sequence alignments ..... 657-680
- YANG, YUHONG. Mixing strategies for density estimation .... 75-87



YU, BIN AND BÜHLMANN, PETER. Discussion of "Additive logistic regression: A statistical view of boosting" by Jerome Friedman, Trevor Hastie and Robert Tibshirani .....	377-386
ZHANG, YING AND WELLNER, JON A. Two estimators of the mean of a counting process with panel count data .....	779-814
ZHAO, LINDA H. Bayesian aspects of some nonparametric problems .....	532-552
ZUO, YIJUN AND SERFLING, ROBERT. General notions of statistical depth function .....	461-482
ZUO, YIJUN AND SERFLING, ROBERT. Structural properties and convergence results for contours of sample statistical depth functions .....	483-499
DE HAAN, LAURENS, RESNICK, SIDNEY AND DREES, HOLGER. How to make a Hill plot .....	254-274
VAN DER VAART, AAD W. AND GHOSAL, SUBHASHIS AND SEN, ARUSHARKA. Testing monotonicity of regression .....	1054-1082
VAN DER VAART, AAD W., GHOSAL, SUBHASHIS AND GHOSH, JAYANTA K. Convergence rates of posterior distributions .....	500-531
WANG, HSIUYING AND WOODROOFE, MICHAEL. The problem of low counts in a signal plus noise model .....	1561-1569
MEYER, MARY AND WOODROOFE, MICHAEL. On the degrees of freedom in shape-restricted regression .....	1083-1104
WOODROOFE, MICHAEL AND MEYER, MARY. On the degrees of freedom in shape-restricted regression .....	1083-1104

# Corrections

INGLOT, TADEUSZ, KALLENBERG, WILBERT C. M. AND LEDWINA, TERESA. Vanishing shortcoming and asymptotic relative efficiency .....	1795-000
KALLENBERG, WILBERT C. M., LEDWINA, TERESA AND INGLOT, TADEUSZ. Vanishing shortcoming and asymptotic relative efficiency .....	1795-000
LEDWINA, TERESA, INGLOT, TADEUSZ AND KALLENBERG, WILBERT C. M. Vanishing shortcoming and asymptotic relative efficiency .....	1795-000